

Remarks/Arguments

Reconsideration of this application is requested.

Extension of Time

A request for a two month extension of the period for response to the office action mailed on July 11, 2007 is enclosed. The extended period for response expires on December 11, 2007.

Claim Status

Claims 1-12 are pending. Claims 1-8 are amended.

Claim Rejections – 35 USC 112

Claims 1-12 are rejected under 35 USC 112, second paragraph, as indefinite. In this regard, the Action identifies several specific issues, and further notes that claims 1-12 are replete with clarity and grammatical issues. In response, claims 1-12 have been carefully reviewed and revised to correct those issues specifically identified and to otherwise be in full compliance with 35 USC 112, second paragraph.

Regarding the rejection of claims 8 and 9, the Action asserts that there is no disclosure that a polygon defined by the connecting portions is a hexagon. Applicant respectfully disagrees, and directs the Examiner's attention to FIG. 4, where it is clearly seen that the polygon (closed shape) defined by mounting portions 20, connecting arms 16B and reinforcement arms 36 is a hexagon (six-sided figure). Claim 8 has been amended for clarity in this regard.

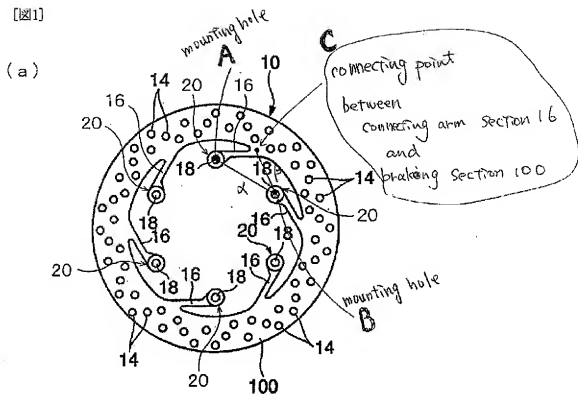
Claim Rejections – 35 USC 102(b)

Claims 1-4, 7-9, 11 and 12 are rejected under 35 USC 102(b) as anticipated by Seidl (DE3814680). Claims 1-4 and 6-12 are further rejected under 35 USC 102(b) as anticipated by Nago (US 6,530,457), and as anticipated by Buckley (US 6,003,639). In response, applicant traverses the rejections and amends independent claim 1 to clearly distinguish over Seidl, Nago and Buckley.

With reference to applicant's FIG. 1, a brake disc 10 includes a plurality of long connecting arms 16 integrally formed with brake disc 10, each having a

mounting hole (portion) 20 positioned at its end opposite brake disc 10. By being long, connecting arms 16 can be effectively deformed by heat expansion during braking of braking section 100. And, since it takes a longer time for heat from braking section 100 to travel to mounting holes 20, the connecting position (mounting holes 20) is less affected by such heat. By positioning mounting holes 20 near braking section 100, the force acting on the connecting position (mounting holes 20) is less. Because the force acting on braking section 100 is the same, the force acting on mounting holes 20 is concerned with the distance between braking section 100 and mounting holes 20. If this distance is large, for example, more mounting holes are needed and the structure becomes more difficult.

FIG. 1 of applicant's specification is reproduced below with annotations in order to illustrate these structural relationships. Consider a first connecting arm having a mounting hole B and an adjacent connecting arm having a mounting hole A, wherein the adjacent connecting arm with mounting hole A is located opposite from the side direction of the first connecting arm with mounting hole B. That is, with reference to paragraph 0067 and FIG. 1(b) of applicant's specification, the first connecting arm with mounting hole B extends in direction S1, whereas the adjacent connecting arm with mounting hole A is located in the opposite direction, or in direction S2, from direction S1. As is clearly seen, a first distance α between mounting hole B of the first arm and mounting hole A of the adjacent arm, is greater than a second distance β between mounting hole B of the first arm and the point C where the adjacent arm connects with braking section 100.



In order to emphasize this relationship, claim 1 is amended to recite:

wherein the connecting arms and braking section are integrally formed; and

a first distance from a first mounting portion of a first connecting arm to an adjacent mounting portion of an adjacent connecting arm, the adjacent connecting arm being located opposite from the side direction of the first connecting arm, is greater than a second distance from the first mounting portion to the connecting point of the adjacent connecting arm with the braking section...

None of Seidl, Nago or Buckley disclose connecting arms, mounting holes and a braking section configured in this manner. In Nago (FIG. 1) and Buckley (FIG. 14), the distance between adjacent mounting holes or portions is clearly much less

than the distance from a mounting hole to a connecting point of an adjacent arm with the braking portion.

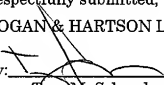
In Seidl, leaf springs 4 are not integrally formed with brake ring 2. Instead, they are connected by rivets 5 to brake ring 2. Since rivet 5 is positioned directly adjacent brake ring 2, it will be easily affected by heat from brake ring 2. In applicant's configuration, the arms are integrally formed with the braking section and do not have this deficiency.

Conclusion

This application is now believed to be in condition for allowance. The Examiner is invited to contact the undersigned to resolve any issues that remain after consideration and entry of this amendment. Any fees due with this response may be charged to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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